

Methode
RCRA Permit
9199

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name:

Facility Address:

Facility EPA ID #:

Methode

7444 West Wilson Avenue, Harwood Heights, IL 60636

ILD005092135

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

☒

If yes - check here and continue with #2 below.

☐

If no - re-evaluate existing data, or

☐

if data are not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND**Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 2

2. Is groundwater known or reasonably suspected to be "contaminated"¹ above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

_____ If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

X If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

The PA/VSI for this facility identified 5 SWMUs and 1 AOC as being present at this facility. All of these units were addressed under a RCRA closure project at the facility. Illinois EPA has approved plans to remediate the contaminated soil present at facility; no contaminated groundwater has been encountered.

In a 3/11/99 letter, Illinois EPA determined that the only activities necessary to complete closure of these units were: (1) construction of an engineered barrier over certain areas where low levels of soil contamination remains, and (2) establishment of an institutional control to maintain the barrier + restrict exposure to the underlying soils. As these are the only closure activities yet to be completed, it is obvious that no contaminated groundwater

Footnotes:

was of concern as part of this closure effort.

¹"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

Page 3

- _____ If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”²).
- _____ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.
- _____ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

2 "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

Page 4

_____ If yes - continue after identifying potentially affected surface water bodies.

If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
Page 5

5. Is the **discharge** of "contaminated" groundwater into surface water likely to be "**insignificant**" (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

_____ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

_____ If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s): _____

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 6

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

_____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR
2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

_____ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

_____ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s): _____

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

Page 7

_____ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
Page 8

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

☒ **YE** - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Methode facility, EPA ID # ILD005092135, located at 7444 W Wilson, Harwood Hts, IL. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

☐ **NO** - Unacceptable migration of contaminated groundwater is observed or expected.

☐ **IN** - More information is needed to make a determination.

Completed by (signature) _____ Date _____
(print) _____
(title) _____

Supervisor (signature) James K. Moore Date _____
(print) James K. Moore
(title) Manager
(EPA Region or State) Illinois EPA

Locations where References may be found:

Illinois EPA files.

Contact telephone and e-mail numbers

(name) _____
(phone #) _____
(e-mail) _____

Methode
RCRA Permit
9/99

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name:

Facility Address:

Facility EPA ID #:

Methode

7444 West Wilson Avenue, Harwood Hts, IL 60632

ILD005092135

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

☒ If yes - check here and continue with #2 below.

☐ If no - re-evaluate existing data, or

☐ if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUNDDefinition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

Page 2

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be "**contaminated**"¹ above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	—	X	—	_____
Air (indoors) ²	—	X	—	_____
Surface Soil (e.g., <2 ft)	—	X	—	_____
Surface Water	—	X	—	_____
Sediment	—	X	—	_____
Subsurf. Soil (e.g., >2 ft)	—	X	—	_____
Air (outdoors)	—	X	—	_____

☒ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

☐ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

☐ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s): See general discussion of project in CA750
evaluation. Facility has completed all RCRA closure
activities -- required engineered barrier now in place

Footnotes:

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ¹
Groundwater	___	___	___	___			___
Air (indoors)	___	___	___				
Soil (surface, e.g., <2 ft)	___	___	___	___	___	___	___
Surface Water	___	___			___	___	___
Sediment	___	___			___	___	___
Soil (subsurface e.g., >2 ft)				___			___
Air (outdoors)	___	___	___	___	___		

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

- ___ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).
- ___ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.
- ___ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s): _____

¹ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

Page 5

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

____ If no (there are current exposures that can be reasonably expected to be "unacceptable")-continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

[illegible]

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

Page 6

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

☒ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Methuene facility, EPA ID # 11D005092135, located at 7444 West Wilson Ave., Harwood Hts. IL under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

☐ NO - "Current Human Exposures" are NOT "Under Control."

☐ IN - More information is needed to make a determination.

Completed by (signature) _____ Date _____
(print) _____
(title) _____

Supervisor (signature) James K. Monte Date _____
(print) _____
(title) _____
(EPA Region or State) _____

Locations where References may be found:

Illinois EPA ID#

Contact telephone and e-mail numbers

(name) _____
(phone #) _____
(e-mail) _____

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

7E

CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE

Completed by: Rick Hersemann
Date: June 19, 1992

Background Facility Information

Facility Name: Methode Electronics, Inc.
EPA Identification No.: ILD 005 092 135
Location (City, State): Harwood Heights, Illinois
Facility Priority Rank: High

1. Is this checklist being completed for one solid waste management unit (SWMU), several SWMUs, or the entire facility? Explain.

The entire facility, which includes five SWMUs and one AOC.

Status of Corrective Action Activities at the Facility

2. What is the current status of HSWA corrective action activities at the facility?

- ☐ No corrective action activities initiated (Go to 5)
☒ RCRA Facility Assessment (RFA) or equivalent completed
☐ RCRA Facility Investigation (RFI) underway
☐ RFI completed
☐ Corrective Measures Study (CMS) completed
☐ Corrective Measures Implementation (CMI) begun or completed
☐ Interim Measures begun or completed

3. If corrective action activities have been initiated, are they being carried out under a permit or an enforcement order?

- ☐ Operating permit
☐ Post-closure permit
☐ Enforcement order
☒ Other (Explain)

No corrective action activities have been initiated.

4. Have interim measures, if required or completed [see Question 2], been successful in preventing the further spread of contamination at the facility?

- ☐ Yes
☐ No
☐ Uncertain; still underway
☒ Not required

Additional explanatory notes:

Anticipated Final Corrective Measures

9. If already identified or planned, would final corrective measures be able to be implemented in time to adequately address any existing or short-term threat to human health and the environment?

☐ Yes
☐ No
☒ Uncertain

Additional explanatory notes:

No final corrective measures have been identified. Facility has submitted a closure plan to IEPA for all five SWMUs and the AOC.

10. Could a stabilization initiative at this facility reduce the present or near-term (e.g., less than two years) risks to human health and the environment?

☐ Yes
☐ No
☒ Uncertain

Additional explanatory notes:

RCRA closure of the SWMUs and AOC would probably reduce risks to human health and the environment.

11. If a stabilization activity were not begun, would the threat to human health and the environment significantly increase before final corrective measures could be implemented?

☐ Yes
☐ No
☒ Uncertain

Additional explanatory notes:

Technical Ability to Implement Stabilization Activities

12. In what phase does the contaminant exist under ambient site conditions? Check all that apply.

☒ Solid
☐ Light non-aqueous phase liquids (LNAPLs)
☐ Dense non-aqueous phase liquids (DNAPLs)
☐ Dissolved in ground water or surface water
☐ Gaseous
☐ Other _____

13. Which of the following major chemical groupings are of concern at the facility?

☒ Volatile organic compounds (VOCs) and/or semi-volatiles
☐ Polynuclear aromatics (PAHs)
☐ Pesticides
☐ Polychlorinated biphenyls (PCBs) and/or dioxins
☐ Other organics
☐ Inorganics and metals
☐ Explosives
☐ Other _____

Conclusion

18. Is this facility an appropriate candidate for stabilization activities?

- (X) Yes
() No, not feasible
() No, not required
() Further investigation necessary

Explain final decision, using additional sheets if necessary.

RCRA closure of the SWMUs and AOC will be equivalent to stabilization activities. Facility has submitted a closure plan to IEPA which includes remediation of soils.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page or a sheet of stationery. There is no handwriting or other markings on the page.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION V

DATE: 4/4/95

SUBJECT: Request for Review of Documents: PA/VSI - MelHude Electronics
for FOIA RIN 01009 -95 IL D 005 092 135

FROM: Joel P. Morbito,
State Programs/Regulatory Development Section
RCRA Program Management Branch

TO: Thad Slaughter, Acting Chief or Mike DeRosa Acting Chief
Technical Enforcement Section #1 Technical Enforcement Section #2
RCRA Enforcement Branch RCRA Enforcement Branch

Please have someone on your staff review the attached PA/VSI report. This review should determine the appropriate response for this FOIA:

- ☒ Prepare partial denial letter saying that "Executive Summary" and "Conclusions and Recommendations" sections are not releasable (provide specific reason).
- ☐ Prepare response saying that "Executive Summary" and "Conclusions and Recommendations" sections are releasable, but are the opinions of the contractor and not those of U.S. EPA

If you have other documents to be included in this review, please determine their releasability and forward them to me.

Please contact me at 6-6761 if you have any questions.

Thank you for your cooperation.

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Darryl Borrelli
Mako, Gould, and Kartcher
401 City Avenue
Suite 500
Bala Cynwyd, PA 19004

4a. Article Number

P 140 686 655

4b. Service Type

- ☐ Registered ☐ Insured
- ☒ Certified ☐ COD
- ☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

2/12/91

5. Signature (Addressee)

6. Signature (Agent)

[Signature]

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 ☆ U.S. GPO: 1991-287-066

DOMESTIC RETURN RECEIPT

PS Form 3800, June 1991

F. HARRIS (HRE-8J) REB

Mr. Darryl Borrelli	
Mako, Gould & Kartcher	
401 City Avenue	
Suite 500	
Bala Cynwyd, PA 19004	
Postage	\$ 1.90
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.90
Postmark or Date	



Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

P 140 686 655

RECEIVED
WMD RCRA
RECORD CENTER *Compliance*

MAR 3rd 1993

HRE-8J

FEB 19 1993

Mr. Darryl Borrelli
Manko, Gould, and Katcher
401 City Avenue
Suite 500
Bala Cynwyd, Pennsylvania 19004

Re: Methode Electronics, Inc.
ILD 005 092 135

Dear Mr. Borrelli:

Per your request of February 9, 1993, enclosed please find a copy of the Preliminary Assessment/Visual Site Inspection for the referenced facility.

The executive summary and conclusions and recommendations section have been withheld as enforcement confidential.

If you have any questions, please contact me at (312) 886-4448.

Sincerely yours,
ORIGINAL SIGNED BY
KEVIN M. PIERARD

Kevin M. Pierard, Chief
Minnesota/Ohio Technical Enforcement Section
RCRA Enforcement Branch

Enclosure

HRE-8J:FHARRIS:6-2884:2/17/93:MASTER.RES/LIST3

OFFICIAL FILE COPY

CONCURRENCE REQUESTED FROM REB			
OTHER STAFF	REB STAFF	REB SECTION CHIEF	REB BRANCH CHIEF
	<i>pd</i> <i>2/17/93</i>	<i>2/19-93</i>	

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118



**PRELIMINARY ASSESSMENT/
VISUAL SITE INSPECTION**

**METHODE ELECTRONICS, INC.
HARWOOD HEIGHTS, ILLINOIS
ILD 005 092 135**

FINAL REPORT

Prepared for

**U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460**

Work Assignment No.	:	C05087
EPA Region	:	5
Site No.	:	ILD 005 092 135
Date Prepared	:	July 20, 1992
Contract No.	:	68-W9-0006
PRC No.	:	009-C05087IL2Y
Prepared by	:	B&V Waste Science and Technology Corp. (Ramona Reints)
Contractor Project Manager	:	Shin Ahn
Telephone No.	:	(312) 856-8700
EPA Work Assignment Manager	:	Kevin Pierard
Telephone No.	:	(312) 886-4448

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION	1
2.0 FACILITY DESCRIPTION	4
2.1 FACILITY LOCATION	4
2.2 FACILITY OPERATIONS	4
2.3 WASTE GENERATING PROCESSES	6
2.4 HISTORY OF DOCUMENTED RELEASES	10
2.5 REGULATORY HISTORY	11
2.6 ENVIRONMENTAL SETTING	12
2.6.1 Climate	12
2.6.2 Flood Plain and Surface Water	12
2.6.3 Geology and Soils	12
2.6.4 Ground Water	13
2.7 RECEPTORS	14
3.0 SOLID WASTE MANAGEMENT UNITS	15
4.0 AREAS OF CONCERN	20
5.0 CONCLUSIONS AND RECOMMENDATIONS	21
REFERENCES	25

Attachments

- A PRELIMINARY ASSESSMENT FORM 2070-12
- B VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS
- C VISUAL SITE INSPECTION FIELD NOTES
- D ANALYTICAL RESULTS FROM INITIAL SOIL AND CONCRETE SAMPLING

LIST OF TABLES

<u>Table</u>		
1	SOLID WASTE MANAGEMENT UNITS (SWMUs)	8
2	SOLID WASTES	9
3	SWMU AND AOC SUMMARY	22

Contents (continued)

LIST OF FIGURES

Figure

1	FACILITY LOCATION	5
2	FACILITY LAYOUT	7

EXECUTIVE SUMMARY

B&V Waste Science and Technology Corp. (BVWST) performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMUs) and other areas of concern (AOCs) at the Methode Electronics, Inc. (Methode) facility in Harwood Heights, Illinois. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from identified SWMUs and AOCs. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritization of RCRA facilities for corrective action.

Methode manufactures additive circuitry, assembles circuits using purchased components, and molds plastic. The facility generates and manages the following waste streams: spent solvents (F003, F005 and D001), non-hazardous cutting oil, panel webbing, and cardboard. The facility has operated under self-ownership in its current location since 1965, occupying 3.9 acres in a mixed-use area and employing about 185 people. Methode's regulatory status is a hazardous waste treatment and storage facility, however the facility is operating as a conditionally exempt small-quantity generator while completing the RCRA closure process for all SWMUs. Closure activities to date include soil sampling for numerous compounds (see Appendix D), soil gas sampling for perchloroethane, and submitting revised closure plans to the Illinois Environmental Protection Agency (IEPA). The most recent closure plan is under review at IEPA.

The PA/VSI identified the following five SWMUs and one AOC at the facility:

Solid Waste Management Units

1. Drum Storage Room
2. Former Printed Circuit Board Treatment Area
3. Drum Storage Area
4. Tank Storage Area
5. Storage Shed

Area of Concern

1. Gravel-lined Storage Area

The potential for release of hazardous wastes from SWMUs 1, 2, and 5 to ground water, surface water, air and on-site soils is low. Since 1982, SWMU 1 has stored small quantities of spent solvent for short time periods. Prior to 1982 the unit was used for printed circuit board treatment and waste

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management practices are unknown. A concrete wipe sample of the drum storage room (SWMU 1) floor indicated elevated levels of volatile and semi-volatile organic compounds are present. However, the compounds are not expected to be released to soil and ground water.

The former printed circuit board treatment area (SWMU 2) now houses work space for assembly. Until June 1981, this unit managed hazardous wastes in five above-ground tanks. The tanks and all associated equipment and piping were decontaminated and removed before the unit was remodeled.

The potential for release of hazardous wastes from the drum and tank storage areas (SWMUs 3 and 4) and the gravel-lined storage area (AOC 1) to groundwater and on-site soils is high. Soil and concrete wipe samples indicate volatile and semi-volatile organic compounds are at elevated levels. IEPA is requiring Methode to conduct a more intensive sampling effort to help determine the extent of contamination vertically and horizontally and remediate or remove contaminated soils before final RCRA closure. The potential for the unit to release hazardous wastes to air and surface water is low.

The storage shed (SWMU 5) stored drummed chemicals at one time. Facility representatives state the unit never stored drums of waste even though it is indicated on the Part A permit application.

The nearest surface water body, the Des Plaines River, is about two miles west of the facility. It is used for recreational purposes. Lake Michigan, which is eight miles east of the facility, provides drinking water for Harwood Heights and the surrounding area. The location of the nearest drinking water well is unknown, but assumed to be about one and one-half miles west of the facility within a forest preserve. Ground water is not used for drinking purposes in the area. Four wetlands are located about one mile from the facility. Residential homes are one block away and a school is across Wilson Avenue to the south.

BVWST recommends sampling the floor of SWMUs 2 and 5 and monitoring of all closure efforts and remediation activities be conducted.

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1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC) received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PAs) and visual site inspections (VSIs) of hazardous waste treatment and storage facilities in Region 5. As a team member with PRC under the TES 9 contract, B&V Waste Science and Technology Corp. (BVWST) conducted the PA/VSI for the Methode Electronics, Inc. (Methode) facility.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells.
- Closed and abandoned units.
- Recycling units, wastewater treatment units, and other units that EPA has generally exempted from standards applicable to hazardous waste management units.
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading-unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release to the environment of hazardous waste or constituents has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility.
- Obtain information on the operational history of the facility.
- Obtain information on releases from any units at the facility.
- Identify data gaps and other informational needs to be filled during the VSI.

The PA generally includes review of all relevant documents and files located at state offices and the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA.
- Identify releases not discovered during the PA.
- Provide a specific description of the environmental setting.
- Provide information on release pathways and the potential for releases to each medium.
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases.

The VSI includes interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all visible SWMUs, identifying evidence of releases, initially identifying potential sampling parameters and locations, if needed, and obtaining all information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Methode facility in Harwood Heights, Illinois. The PA was completed on February 19, 1992. BVWST gathered and reviewed information from Illinois Environmental Protection Agency (IEPA) and from EPA Region 5 RCRA files, the Federal Emergency Management Agency, U. S. Fish and Wildlife Service National Wetlands Inventory maps, U. S. Geological Survey Topographic Maps, U. S. Department of Agriculture Soil Survey, and published geologic reports. The VSI was conducted on February 20, 1992. It included interviews with Methode facility representatives and a walk-through inspection of the facility. Five SWMUs and one AOC were identified at the facility.

BVWST completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Attachment A. The VSI is summarized and six inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C. Analytical results from initial soil and concrete sampling are included in Attachment D.

2.0 FACILITY DESCRIPTION

This section describes the facility's location, past and present operations (including waste management practices), waste generating processes, history of documented releases, regulatory history, environmental setting, and receptors.

2.1 FACILITY LOCATION

The Methode facility is located at 7444 West Wilson Avenue in Harwood Heights, Cook County, Illinois (latitude 41° 57' 48" N and longitude 87° 48' 30" W), as shown in Figure 1. The facility occupies 3.9 acres in a mixed-use area.

The Methode facility is bordered to the north by Alin Manufacturing Company; on the west by F and M Printing Company; on the south, across Wilson Avenue, by a Methode office building and Ridgewood High School; and on the east by Doromatic, Incorporated.

2.2 FACILITY OPERATIONS

The Methode facility manufactures additive circuitry, assembles circuits using purchased components, and molds plastics. A circuit is made by silkscreening a pattern on a panel. After the ink is cured, printed panels are fed into a punch press machine to cut away excess material. The punched circuit is then installed into a component.

Raw materials used in the circuit manufacturing process are ink, carbon powder and panels. Ink and carbon powder are stored on the floor of the ink making room in the containers from the manufacturer. Methode adds carbon to the ink and stores small quantities of the mixture in a household refrigerator. Panels, essentially paper coated with phenolic resins, are received in bundles of sheets. The sheets are stored on shelving inside the facility.

Plastic molding is accomplished with both manual and automatic machinery. The process consists of melting plastic pellets and injecting the material into a die. Plastic pellets are stored in 50- and 100-pound bags and small drums on facility shelves.

Methode has operated at its current location since 1965 and employs about 185 people. The facility consists of two buildings connected by a walkway and paved area for parking cars and storing miscellaneous items. The east plant building covers 60,000 square feet and houses production areas and office space. The west plant building covers 21,000 square feet, housing assembly processes (Methode, 1980b). The facility property is paved east and north of the east plant building.

Five solid waste management units exist at Methode. A drum storage room (SWMU 1) is located in the east plant building. Drums of both product and waste are stored here. A former printed circuit board treatment area (SWMU 2) is located in the west plant building. The area was remodeled to accommodate assembly processes. Drum and tank storage areas (SWMUs 3 and 4) outside the north wall of the east building were used to store product and hazardous wastes generated by past electroplating and etching processes. A storage shed (SWMU 5) located in the back parking lot may have stored drummed hazardous wastes in the past.

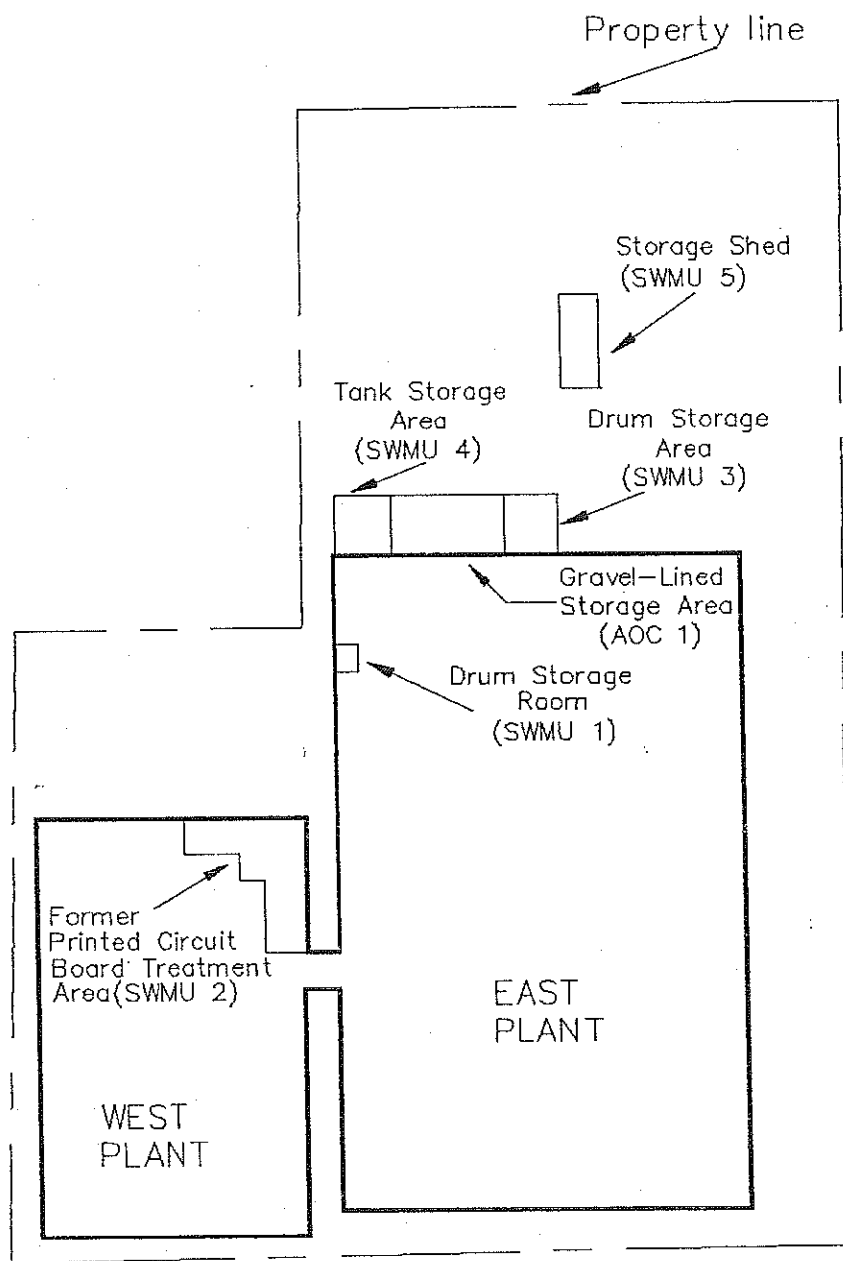
Facility SWMUs are identified in Table 1. The facility layout, including SWMUs and AOC, is shown in Figure 2.

The Methode facility has operated under self-ownership since 1965. Printed circuit boards were manufactured at the facility from 1965 to 1981. Prior to 1965, the property was owned by another party and information regarding land use and previous operations was not available.

2.3 WASTE GENERATING PROCESSES

The primary waste streams generated at the Methode facility are solvents, mineral spirits, cutting oil, panel webbing, and cardboard. These wastes are generated during the production of circuitry, assembly of components, and molding plastic. Wastes generated at the facility are discussed below and summarized in Table 2. Annual waste generation rates presented are based on 1991 data, as described by facility representatives during the VSI.

Circuitry production consists of printing circuit patterns onto panels using a silk screen. After printing, silkscreens are wiped with solvent T902 on rags. This solvent, composed of toluene, acetone, and isopropyl alcohol, evaporates during use. Used rags containing spent solvent (D001, F003, F005) are kept in a sealed container until American Industrial of Chicago takes them off site for washing. The rags are then reused. Silk screen wash-up generates less than two drums of the waste annually. The waste is kept in the drum storage room (SWMU 1). Safety Kleen transports the waste off site to their reclamation facility in Dolton, Illinois.



METHODE ELECTRONICS INC.
HARWOOD HEIGHTS, ILLINOIS
PA/VSI

FIGURE 2
FACILITY LAYOUT



Source: Modified from Methode Electronics, 1992

TABLE 1
SOLID WASTE MANAGEMENT UNITS (SWMUs)

<u>SWMU Number</u>	<u>SWMU Name</u>	<u>RCRA Hazardous Waste Management Unit *</u>	<u>Status</u>
1	Drum Storage Room	Yes	Active, less than 90 days storage
2	Former Printed Circuit Board Treatment Area	Yes	Inactive
3	Drum Storage Area	Yes	Inactive
4	Tank Storage Area	Yes	Inactive
5	Storage Shed	Yes	Inactive

Note:

- * A RCRA hazardous waste management unit is one that requires or formerly required submittal of a RCRA Part A or Part B permit application.

TABLE 2
SOLID WASTES

<u>Waste/EPA Waste Code</u>	<u>Source</u>	<u>Primary Management Unit *</u>
Solvent T902 (D001, F003, F005)	Silkscreen wash-up	1
Mineral Spirits (D001)	Paint brush cleaning	1
Cutting Oil (NA) **	Punch press machines, tool room	1
Panel Webbing (NA)	N/A	none
Cardboard (NA)	N/A	none
Waste acids and solvents (D002, F002, F003, F005)	Painted circuit board manufacturing	2, 3, 4
Electroplating sludge (F006, F007, F008, F009, D002)	Painted circuit board manufacturing	2

Notes:

* Primary management unit refers to a SWMU that manages or formerly managed the waste.

** Nonapplicable (NA) designates nonhazardous waste.

Circuitry production also generates waste cutting oil (non-hazardous) and waste mineral spirits (D001) (Methode, 1992). Machinery is lubricated with cutting oil, and paint brushes are cleaned with mineral spirits. Methode generates one drum of waste oil and less than two drums of waste mineral spirits each year. The waste is accumulated in the drum storage room (SWMU 1) until Safety-Kleen transports it to their reclamation facility in Dolton, Illinois.

Circuitry production generates waste panel webbing (non-hazardous). Circuits are punched out of panels with punch press machines. The panel webbing drops into a cardboard box which is emptied into the trash dumpster behind the building. Facility representatives stated about 10,000 pounds of this waste is generated annually. Waste cardboard (non-hazardous) is also generated at the facility. Many items arriving at the facility are packaged in cardboard which is stored separately from the trash in a small dumpster behind the facility because it is non-hazardous. One dumpster of waste cardboard is transported off site each week.

In the past, printed circuit boards were manufactured at the facility. Associated waste acids and solvents generated were managed in tanks in the former printed circuit board treatment area (SWMU 2) and may also have been managed in the drum and tank storage areas (SWMUs 3 and 4). All drums and tanks were removed from the facility after printed circuit board production ceased in 1981. A "closed loop" water treatment and copper recovery system was used from about 1975 until it was disassembled and decontaminated in 1981. Waste generation data on the 1980 Part A permit application estimates 3,060 tons of F006, including F007, F008, F009 and D002; 47,520 pounds of F002, including U226; 3,850 pounds of F005 including U020 and 42 pounds of F002 were generated annually.

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to ground water, surface water, air, and on-site soils at the Methode facility. Although there is no history of documented release at the facility, soil and concrete wipe samples taken for closure activities indicate elevated levels of several compounds. A drum storage room (SWMU 1) floor sample had elevated levels of compounds including bis(2-ethylhexyl) phthalate, isophorone, and total xylenes (IEPA, 1991a). A soil sample collected from the tank storage area (SWMU 4) contained tetrachloroethylene and other compounds, as did two samples taken from the gravel-lined storage area (AOC 1) (IEPA, 1991a). A summary of initial analytical results is included in Appendix D.

As a follow-up measure, soil gas analysis for target compound perchloroethane was conducted around the drum and tank storage areas and the gravel-lined storage area (SWMUs 3 and 4, AOC 1) on June 24-26, 1991. The purpose of sampling was an initial means of determining the extent of contamination. The contractor who performed the sampling considered the results of the analysis to be more qualitative than quantitative and not conclusive. Results of the sampling effort were submitted to IEPA as part of a closure plan. Due to concentrations detected in these samples, IEPA required Methode to submit a modified closure plan outlining proposed soil contamination remediation and removal methods (IEPA, 1991b). This plan, now under review at IEPA, will involve additional sampling and analysis for percent volatiles, Toxicity Characteristic Leaching Procedure (TCLP) metals, cyanide, F-list compounds and U-list compounds (IEPA, 1992).

2.5 REGULATORY HISTORY

Methode facility representatives submitted a Notification of Hazardous Waste Activity to EPA on August 11, 1980 (Methode, 1980a). A RCRA Part A permit application was submitted on November 13, 1980 (Methode, 1980b). This application listed the following process codes and capabilities: Treatment in tanks (T01) - 190,000 gallons, storage in containers (S01) - 7,150 gallons, storage in tanks (S02) - 3,000 gallons. The wastes indicated were F002, F003, F005, F007, F008, F009, D002, and U002. On August 10, 1983, another Notification of Hazardous Waste Activity was submitted. Waste codes specified on that notification were F002 and F006 (Methode, 1983).

Methode is currently closing all of their hazardous waste management units and has submitted a closure plan to the IEPA for review. The facility currently operates as a conditionally exempt small-quantity generator, storing wastes less than 180 days. However, Methode will continue to be regulated as a hazardous waste treatment/storage facility until all hazardous waste RCRA units are closed. Methode will request withdrawal of their Part A permit when all units have been closed.

In the past, Methode has had some minor RCRA compliance problems. Most violations, observed during a series of IEPA inspections between 1982 and 1990, pertained mainly to deficiencies in paperwork such as inspection logs, manifests, operating records, and contingency plans. No compliance orders were issued as a result of the inspections. No outstanding violations remain (IEPA, 1982, 1987, 1988, 1990).

Cook County Department of Environmental Control permits a facility oven used to cure printed panels. Facility representatives indicate the oven releases heat only (Cook County, 1992). The facility is not required to have a National Pollutant Discharge Elimination System (NPDES) permit.

2.6 ENVIRONMENTAL SETTING

This section describes the climate, flood plain and surface water, geology and soils, and ground water in the vicinity of the Methode facility.

2.6.1 Climate

Data from the National Bureau at O'Hare Airport indicate an annual average daily maximum temperature of 58.7°F and an average daily minimum of 39.7°F. The average annual precipitation from 1958 to 1990 was 33.3 inches, and the greatest 24-hour rainfall was 9.3 inches in August 1987. The overall wind direction varies seasonally with an average wind speed of 10.3 mph.

2.6.2 Flood Plain and Surface Water

The Methode facility is located in a no special flood hazard area or non-flood prone community. Therefore, the area is not mapped by the Federal Emergency Management Agency (FEMA, 1991). The nearest surface water body, the Des Plaines River, is located about two miles west of the facility and is used for recreational purposes. Facility runoff flows to storm sewer drains located on site. This water discharges to the publicly owned treatment works.

2.6.3 Geology and Soils

Much of Cook County has not been mapped in detail by the U.S. Department of Agriculture (1979) because of urban land use. However, the report supplies a regional soil map that classifies the near-surface soil near the Methode facility as nearly level, poorly drained soil resulting from the deposition of clay and silt in a glacial lake.

Geology at the site is expected to be comprised of an unknown thickness of glacial deposits (lacustrine clay, till, and outwash) over Paleozoic sedimentary rock units. No site-specific information on the stratigraphy is presently available. However, a detailed statewide study by Berg and Kempton (1988) provides regional three-dimensional mapping of geological materials to a depth of 50 feet. Their map suggests over 20 feet of predominantly silty, clayey till over Silurian and Devonian rock, mainly dolomite. The bedrock surface is expected to be between 20 and 50 feet below ground surface (Berg and Kempton, 1988).

2.6.4 Ground Water

No site-specific hydrogeological information is available. Therefore, no statements may be made regarding the depth to the water table, ground-water flow rates or flow directions, or the stratigraphic position of aquifers beneath the facility.

In the eastern Illinois region, ground water is obtained from four major aquifer systems -- the glacial drift system, the shallow bedrock system, and two deep bedrock systems. They are distinguished by their hydrologic properties and recharge source areas (Hughes et al., 1966). In central Cook County, the glacial drift is thin, and sand and gravel deposits are correspondingly thin or absent. Virtually all wells penetrate deep bedrock aquifers (Bergstrom et al., 1955).

The shallow bedrock aquifer system in northeastern Illinois underlies the glacial drift system and is mainly comprised of Silurian dolomite formations. The upper boundary of this system is the bedrock-drift contact, and the lower boundary is the Ordovician Maquoketa Shale. Water from this aquifer is obtained from fractures and solution openings in the Silurian dolomite beds (Hughes et al., 1966). The shallow bedrock aquifer system receives some recharge locally from precipitation (Hughes et al., 1966).

The deep bedrock aquifer systems include the Cambrian-Ordovician aquifer system and the Mt. Simon aquifer system. The Cambrian-Ordovician aquifer system contains two major aquifers: the Glenwood-St. Peter aquifer and the Ironton-Galesville aquifer. The top of the Cambrian-Ordovician aquifer system is the Galena-Platteville Dolomite. The Glenwood-St. Peter aquifer is widely used where water requirements are less than 200 gallons per minute (gpm). This unit has a hydraulic conductivity between nine and 15 gallons per day per square foot (gpd/sq. ft.). The Ironton-Galesville Sandstone aquifer has a hydraulic conductivity between 30 and 40 gpd/sq. ft. Recharge to the deep bedrock aquifer systems is mostly from west and north of the six-county metropolitan area, where rocks crop out at the surface or lie immediately below the glacial drift. Minor recharge to the deep bedrock aquifer occurs as leakage through the shallow bedrock aquifer system (Hughes et al., 1966).

The Mt. Simon aquifer system is bounded above by the relatively impermeable shales and siltstones of the Eau Claire Formation, and below by pre-Cambrian basement rock. The average hydraulic conductivity of the aquifer system is 16 gpd/sq. ft. (Hughes et al., 1966) and recharge is largely from the outcrop region of Cambrian rocks in central-southern Wisconsin (Willman, 1971).

The Methode facility occupies 3.9 acres in a mixed-use area in Harwood Heights, Illinois. Harwood Heights has a population of about 8,200 and is surrounded by the city of Chicago.

The Methode facility is bordered on the north by Alin Manufacturing, on the west by F&M Printing; on the south, across Wilson Avenue, by a Methode office building and Ridgewood High School; and on the east by Doromatic, Inc.

Facility access is controlled by fencing along the north edge of the property. The building is equipped with a security system.

The nearest surface water body, the Des Plaines River, is located 2 miles west of the facility and is used for recreational purposes. Lake Michigan, the closest surface water body used for drinking water purposes, is about eight miles east of the facility.

Ground water is not used for drinking water in the vicinity. The nearest drinking water well location is unknown, but assumed to be about one and one-half miles west of the facility within a forest preserve. Sensitive environments are not located on site. Two wetlands, totaling about two acres, are one mile south of the facility. Two more wetlands, also with a total extent of two acres, are located about one mile southeast of the facility (USFWS, 1981). Ridgewood High School is across Wilson Avenue immediately south of the facility. The nearest residences are located about one block north and west of the facility.

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the five SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and BVWST observations.

SWMU 1

Drum Storage Room

Unit Description:

The drum storage room is located along the west wall inside the east plant building. It is a 9-foot by 16-foot room with a reinforced concrete floor, wooden curb at the doorway and cinderblock walls. There are no floor drains in the room. The unit was used for printed circuit board treatment until June 1981 (IEPA, 1981). It is unclear what printed circuit board treatment involved. Since then, the unit has been used to store small quantities of drummed waste (Photo No. 1).

Date of Startup:

This unit probably began operation as a printed circuit board treatment area in 1965 and as a drum storage area in 1981.

Date of Closure:

The unit has been inactive as a printed circuit board treatment area since 1981 and is active as a drum storage area.

Wastes Managed:

Details of wastes managed during printed circuit board treatment are unknown. The unit began to store small quantities of spent acetone (F003), 1-1-1 trichloroethane (F001), mineral spirits (D001) and isopropyl alcohol (D001). Now the unit stores only small quantities of spent T902 solvent (F003, F005, D001), a mixture of toluene, acetone, isopropyl alcohol and acetone alcohol.

Release Controls:

Release controls include a reinforced concrete floor, wooden curb at the doorway and bagged oil dry stored in the unit to absorb any spills.

**History of Documented
Releases:**

No releases from this unit have been documented. However, wipe samples taken of the concrete floor indicated elevated levels of volatile and semi-volatile organic compounds were present.

Observations:

The unit contained several drums of product and no drums of waste during the VSI. Evidence of release was not obvious. The floor is generally in good condition although it is cracked and deteriorated beneath the former location of a small boiler.

SWMU 2

Former Printed Circuit Board Treatment Area

Unit Description:

This unit is located in the northeast corner of the west plant building. It is triangular in shape, measuring approximately 60 feet by 54 feet by 80 feet on a side. The unit has concrete floors without floor drains and the two walls are cinder block. Before remodeling, the unit contained 16 tanks for plating and chemical storage. Now it contains work spaces for assembly (Photo No. 2).

Date of Startup:

This unit began operations in 1972.

Date of Closure:

The unit has been inactive since 1981 and is undergoing RCRA closure.

Wastes Managed:

The unit is known to have managed waste acids and solvents (D002, F002, F003, F005) generated by the plating and etching processes.

Release Controls:

Release controls in use while the unit was active included an epoxy coated concrete floor and a secondary containment system consisting of troughs and sumps. Evidence of the system referenced in facility closure plan was not apparent during the VSI.

**History of Documented
Releases:**

No releases from this unit have been documented.

Observations: This unit contained work spaces for assembly of purchased components during the VSI. The sealed concrete floor has been replaced with tile. No evidence of release was noted.

SWMU 3 Drum Storage Area

Unit Description: The drum storage area is outdoors, north of the east plant building. A concrete pad measuring about 25 feet by 25 feet makes up the unit. The pad was used to store drummed waste (Photo No. 4).

Date of Startup: This unit began operations in 1975.

Date of Closure: The unit has been inactive since 1982 and is awaiting approval of a RCRA closure plan.

Wastes Managed: The unit managed wastes generated from electroplating and etching processes (F002, F003, F005, F006, F007, F008, F009, D002). All wastes were transported off site during the mid-1980s, no waste is managed there now.

Release Controls: According to IEPA documents, the concrete pad was fenced and drainage collected in the gravel-lined storage area just west of the pad.

History of Documented Releases: Soil gas samples indicate releases from this unit have occurred.

Observations: The unit stored wooden pallets during the VSI. The concrete pad had some surficial cracks. The unit has been inactive since 1981. Visual evidence of release was not apparent.

SWMU 4 Tank Storage Area

Unit Description: This unit is outdoors, north of the east plant building. A concrete pad measuring about 25 feet by 25 feet makes up the unit. Tanks previously

located in the unit were removed after printed circuit board treatment ceased in 1981.

Date of Startup: This unit began operations in 1975.

Date of Closure: The unit has been inactive since 1981.

Wastes Managed: Spent hydrochloric acid generated from electroplating and etching operations was managed in tanks within the unit. This information is from a RCRA inspection report. BVWST suspects additional wastes could have been stored here, however facility personnel could not recall any wastes stored in the unit.

Release Controls: According to IEPA documents, release controls at the unit have been removed. A concrete spill containment wall bordered the unit at one time. Also, the concrete slab is pitched so drainage collects in the northwestern corner.

History of Documented Releases: Concrete wipe samples indicate releases from this unit have occurred.

Observations: The unit stored metal scraps and boards during the VSI. Surficial cracks were observed in the concrete. Visual evidence of release was not apparent.

SWMU 5

Storage Shed

Unit Description: This unit is located north of the east plant building. It measures 40 feet by 18 feet. The shed has a concrete floor and metal reinforced wood on walls. At one time, the unit was thought to contain drummed hazardous wastes (Photo No. 5).

Date of Startup: This unit began operations in 1978.

Date of Closure: The unit has been inactive since 1981 and is awaiting approval of a RCRA closure plan.

Wastes Managed: No information regarding wastes managed in this unit was found. Facility representatives state no wastes were ever stored here, only drums of product chemicals. IEPA is requiring the unit go through closure since it was indicated as a waste management unit on the 1980 Part A permit application.

Release Controls: The unit has a one-foot curb around the perimeter of the concrete pad, and is kept locked.

History of Documented Releases: No releases from this unit have been documented.

Observations: The unit contained steel grating and scaffolding during the VSI. Some surficial cracks were observed in the concrete floor. The unit has been inactive since 1981 and no evidence of release was noted.

4.0 AREAS OF CONCERN

BVWST identified one AOC during the PA/VSI. This AOC is discussed below; its location is shown in Figure 2.

AOC 1 Gravel-Lined Storage Area

The gravel-lined storage area is between the drum and tank storage area (SWMUs 3 and 4). It measures about 25 feet by 55 feet and is constructed of a layer of gravel over native soil. At one time, it may have stored tanks of product or waste. Releases from the drum and tank storage area may have drained to the gravel-lined storage area. Soil samples collected during closure activities indicate volatile and semi-volatile organic compounds are present.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified five SWMUs and one AOC at the Methode facility. Section 2.0 includes background information on the facility's location, operations, waste generating processes, history of documented release, regulatory history, environmental setting, and receptors. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are BVWST's conclusions and recommendations for each SWMU and AOC. Table 3 summarizes the SWMUs and AOCs at the Methode facility and recommended further actions.

SWMU 1 Drum Storage Area

Conclusions: This unit has low potential for release to ground water, surface water, air and on-site soils. Waste management practices prior to 1981 are unknown; the unit has stored drummed hazardous wastes since that time. Analysis of a concrete sample indicates that elevated levels of volatile and semi-volatile organic compounds (see Attachment D) are present, but soil and ground water will not be impacted unless the compounds are washed into the soil. Methode will conduct remediation activities prior to final closure (IEPA, 1991b).

Recommendations: BVWST recommends RCRA closure activities for the unit be monitored.

SWMU 2 Former Printed Circuit Board Treatment Area

Conclusions: This unit has low potential for release to ground water, surface water, air and on-site soils because of its interior location and solid construction. The unit became inactive in 1981, and was extensively remodeled to accommodate assembly processes.

Recommendations: BVWST recommends the concrete floor be sampled and the unit be RCRA closed.

RELEASED
DATE 12/13/94
RIN #
INITIALS

ENFORCEMENT
CONFIDENTIAL

TABLE 3
SWMU AND AOC SUMMARY

	<u>Date of Operation</u>	<u>Evidence of Release</u>	<u>Recommended Further Action</u>
<u>SWMUs</u>			
1. Drum Storage Room	1965-Present	Yes	Monitor remediation and closure activities
2. Former Printed Circuit Board Treatment Area	1972-1981	No	Sample the floor, monitor remediation and closure activities
3. Drum Storage Area	1975-1981	Yes	Monitor remediation and closure activities
4. Tank Storage Area	1975-1981	Yes	Monitor remediation and closure activities
5. Storage Shed	1978-1981	No	Sample the floor, monitor remediation and closure activities
<u>AOC</u>			
1. Gravel-lined Storage Area	1975-1981	Yes	Monitor remediation and closure activities

RELEASED 12/13/87
DATE
RIN #
INITIALS CA

ENFORCEMENT
CONFIDENTIAL

SWMU 3

Drum Storage Area

Conclusions: This unit has low potential for release to surface water and air. More sampling needs to be conducted before potential for release to ground water and on-site soils can be determined.

Recommendations: BVWST recommends more intensive sampling efforts be completed and future closure activities for the unit be monitored.

SWMU 4

Tank Storage Area

Conclusions: This unit has low potential for release to surface water and air. The potential for release to ground water moderate. Soil samples contained elevated levels of volatile and semi-volatile organic compounds. Methode will conduct a more intensive sampling effort followed by approved remediation activities prior to final closure.

Recommendations: BVWST recommends closure activities for the unit be monitored.

SWMU 5

Storage Shed

Conclusions: This unit has low potential for release to ground water, surface water, air and on-site soils. Wastes may not have been stored in this unit. The shed was constructed with secondary containment.

Recommendations: BVWST recommends the floor be sampled to determine if any releases occurred and future closure activities for the unit be monitored.

AOC 1

Gravel-Lined Storage Area

Conclusions: The unit has low potential for release to surface water and air. Moderate potential for release to on-site soils and ground water exists. Volatile and semi-volatile organic compounds are present in soil samples in elevated concentrations (see

RELEASED
DATE 2/13/00
RIN # 21
INITIALS AV

ENFORCEMENT
CONFIDENTIAL

Attachment D). Methode will conduct a more intensive sampling effort and approved remediation activities prior to closure (IEPA, 1991b).

Recommendations: BVWST recommends closure activities for the unit be monitored.

RELEASED

DATE

RIN #

INITIALS

2/13/80

mw

REFERENCES

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- FEMA, 1991. Federal Emergency Management Agency, Communities Participating in the National Flood Insurance Program as of January 31.
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- Methode, 1980b. Part A Permit Application. November 13.
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- U.S. Department of Agriculture, 1979. Soil Survey of DuPage and Part of Cook Counties, Illinois, May.
- U.S. Fish and Wildlife Service, 1981. National Wetlands Inventory Map. River Forest quadrangle, November.

U.S. Geological Survey, 1978. Topographic map, River Forest quadrangle.

Willman, H.B., 1971. "Summary of the Geology of the Chicago Area". Illinois State Geological Survey Circular 460.

ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12



POTENTIAL HAZARDOUS WASTE SITE

PRELIMINARY ASSESSMENT

PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE

Illinois

02 SITE NUMBER

ILD 005 092 135

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)
Methode Electronics, Inc.02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER
7444 W. Wilson Ave.

003 CITY

Harwood Heights

04 STATE

IL

05 ZIP CODE

60656

06 COUNTY

Cook

07 COUNTY

CODE

08 CONG DIST

09 COORDINATES: LATITUDE

41° 57' 48" N

LONGITUDE

87° 98' 30" W

10 DIRECTIONS TO SITE (Starting from nearest public road)

From Chicago, take I-90 North to Harlem Ave. Exit South on Harlem Ave. Go South to Wilson Ave. Turn west onto Wilson Ave. The facility is a few blocks away on the north side of the street.

III. RESPONSIBLE PARTIES

01 OWNER (if known)

Methode Electronics, Inc.

02 STREET (Business, mailing residential)

7444 W. Wilson Ave.

03 CITY

Harwood Heights

04 STATE

IL

05 ZIP CODE

60656

06 TELEPHONE NUMBER

708-857-9600

07 OPERATOR (if known and different from owner)

same

08 STREET (Business, mailing, residential)

09 CITY

10 STATE

11 ZIP CODE

12 TELEPHONE NUMBER

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE☐ B. FEDERAL:

(Agency Name)

☐ C. STATE☐ D. COUNTY☐ E. MUNICIPAL☐ F. OTHER

(Specify)

☐ G. UNKNOWN

14. OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☒ A. RCRA 3010 DATE RECEIVED: 08/12/80

MONTH DAY YEAR

☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c)

DATE RECEIVED:

/ /

☐ C. NONE

MONTH DAY YEAR

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

BY (Check all that apply)

☒ YES

DATE 02/20/92

☐ NO☐ A. EPA☒ B. EPA CONTRACTOR☐ C. STATE☐ D. OTHER CONTRACTOR☐ E. LOCAL HEALTH OFFICIAL☐ F. OTHER:

(Specify)

CONTRACTOR NAME(S): BVWST

02 SITE STATUS (Check one)

☒ A. ACTIVE☐ B. INACTIVE☐ C. UNKNOWN

03 YEARS OF OPERATION

1965

Present

BEGINNING YEAR ENDING YEAR

☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Solvents used past and present. Cyanides and acids used in the past.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Small quantities of spent solvents are stored inside the facility. Soils and concrete sampled in the back of the parking lot have elevated levels of volatile and semivolatile organic compounds.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)

☐ A. HIGH

(Inspection required promptly)

☐ B. MEDIUM

(Inspection required)

☒ C. LOW

(Inspect on time-available basis)

☐ D. NONE

(No further action needed; complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT

Kevin Pierard

02 OF (Agency/Organization)

U.S. EPA

03 TELEPHONE NUMBER

(312) 886-4448

04 PERSON RESPONSIBLE FOR ASSESSMENT

Ramona Reints

05 AGENCY

06 ORGANIZATION

BVWST

07 TELEPHONE NUMBER

(312) 346-3775

08 DATE

04/22/92

MONTH DAY YEAR

ATTACHMENT B

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

VISUAL SITE INSPECTION SUMMARY

Methode Electronics, Inc.
Harwood Heights, Illinois
ILD 005 092 135

Date: February 20, 1992

Facility Representatives: Bob Kuehnau, Controller
Bill Green, Chemist
Bill Unverzagt, Maintenance Engineer

Inspection Team: Ramona Reints, B&V Waste Science and Technology Corp. (BVWST)
Steve Mehay, BVWST

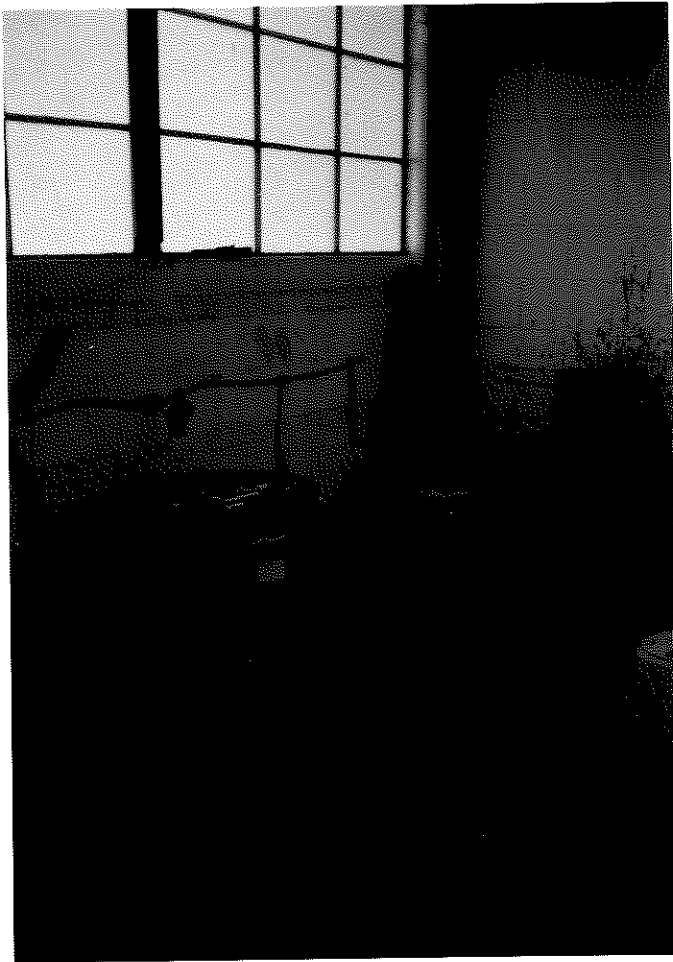
Photographer: Steve Mehay, BVWST

Weather Conditions: Windy and overcast, temperature about 35°F.

Summary of Activities: The visual site inspection (VSI) began at 9:10 a.m. with an introductory meeting. The inspection team identified themselves and discussed the purpose of the VSI and the agenda for the visit. Facility representatives discussed the Methode facility's past and current operations, solid wastes generated, and release history. Most of the information was exchanged on a question and answer basis. Methode representatives provided the team with copies of documents requested.

The VSI tour began at 10:40 a.m. Each area of the plant was inspected and photographed. Past indoor and outdoor waste storage areas were also inspected and photographed (SWMUs 1-5).

The tour concluded at 11:10 a.m. after which the inspection team held an exit meeting with Bob Kuehnau. The VSI was completed and the inspection team left the facility at 11:30 a.m.



Photograph No. 1

Orientation: Northwest

Description: Drummed product stored in drum storage room. No drummed waste was observed during the VSI.

Location: SWMU 1

Date: 2-20-92



Photograph No. 2
 Orientation: Northeast
 Description: Former location of the former printed circuit board treatment area.

Location: SWMU 2
 Date: 2-20-92



Photograph No. 3
 Orientation: South
 Description: Drummed hazardous waste storage occurred on the concrete pad.

Location: SWMU 3
 Date: 6-11-92



Photograph No. 4

Orientation: Southeast

Description: Hazardous wastes were stored in tanks on this concrete pad.

Location: SWMU 4

Date: 6-11-92



Photograph No. 5
Orientation: North
Description: Storage shed contents.

Location: SWMU 5
Date: 2-20-92



Photograph No. 6
Orientation: East
Description: Storage Shed.

Location: SWMU 5
Date: 6-11-92

ATTACHMENT C

VISUAL SITE INSPECTION FIELD NOTES

20 FEBRUARY 1992

0910 BVWST REPS MONA REINTS
AND STEVE METHAY ARRIVE AT
METHODE ELECTRONICS, 7444 W WILSON,

CHICAGO, ILL

WEATHER: COLD AND CLOUDY. TEMPS

ARE IN MID 30S

GOALS KUEHNAN INDICATES THE

FACILITY WAS INSPECTED IN 12/90

AND PROVIDES A COPY

METHAY EXPLAINS VISIT PURPOSE

THE FOLLOWING QUESTIONS WERE ASKED

AND LATER TRANSCRIBED INTO THIS

LOGBOOK:

NOTE: QUESTIONS WERE ANSWERED

BY BOB KUEHNAN, CONTROLLER; BILL

GREEN, CHEMIST; BILL UNVERZAGT,

MAINTENANCE ENGINEER

HOW LONG HAS THE FACILITY OPERATED

HERE? MOVED IN 1965

HOW HAS FACILITY OPERATION CHANGED

SINCE THEN? THE FACILITY STARTED BY

PRINTING CIRCUITS INVOLVING PLATING

AND ETCHING. SOLVENTS AND ACIDS

WERE USED. IN 1981 THIS WAS PAS-

(2)

CONTINUED. CURRENT OPERATIONS IN-
CLUDES ^{STAMPING} PRESS, ASSEMBLY + RASTIC
MOLDING

PREVIOUS FACILITY USE - BEFORE METHODE

UNKNOWN - WAS 2 SEPARATE BUILDINGS

NOW CONNECTED BY A WALKWAY

PREVIOUS LAND USE - PROBABLY AGRICULTURE

NEAREST WELLS PUBLIC/PRIVATE WATER

FROM LAKE MICHIGAN, NEAREST WELL

IS PROBABLY AT THE FOREST PRESERVE

ON CUMBERLAND

NEAREST SCHOOL - ACROSS THE

STREET TO THE SOUTH IS RIDGE-

WOOD HIGH SCHOOL ATHLETIC

COMPLEX THE SCHOOL IS JUST

BEYOND THAT

NEAREST RESIDENCE - APARTMENTS

ABOUT 1 BLOCK NORTHWEST

FOR DERRING FACILITIES - EAST

DORONATIC, WEST: FIRM PRINTING SOUTH

METHODE OFFICE BUILDING / RIDGEWOOD

HIGH SCHOOL NORTH: A/C MANUFACTURING

SITE IN AGREEMENT WITH METHODE

DIMENSIONS ON MAP - APPROXIMATELY

ACROSS THE STREET - 1.2042 (3)

ANY CORRECTIVE ACTIONS? NO

DESCRIBE ALL WASTE GENERATING PROCESSES?

DURING SILKSCREENING, T902 SOLVENT IS USED AS WASHUP. IT IS USED ON A RAG, MOST OF IT EVAPORATES. RAGS ARE KEPT IN A SAFETY CONTAINER. ABOUT 1 GALLON OF T 902 IS TAKEN OFFSITE 2-3 TIMES EACH YEAR. T902 IS 54% TOLUENE 20% ACETONE 20% ISOPROPYL ALCOHOL 5% ACETONE ALCOHOL. IN THE MOLDING FOR FIBER OPTICS PROCESS, THE AGRIND FIBERGLASS IS REVER. IN THE PUNCH PRESS AREA, THE MATERIAL BEING SHEETS ARE GENERATED. PUNCHED IS SHEETS OF PANELS MADE OF PAPER COATED WITH BENZOLIC RESINS. THE WEBS ARE PUT IN THE DUMPER. (APPROX 10,000 POUNDS/YR)

COY OF MOST RECENT ANALYTICAL DATA - FROM SAFETY KLEEN IN 1988, THE T-902 WAS ANALYZED - STILL THE SAME PROCESS / STUFFA GENERATED.

AIR / NPDES PERMITS? NO

PAST RELEASES? NO

SITE SECURITY? ADT FOR THE BUILDING, SECURITY FENCE ALONG THE NORTH (BACK OF PROPERTY)

OF EMPLOYEES? 185

① Hummer

DATES OF SWMU OPERATION? SEE MAY

PAST HW DRUM STORAGE SHED: 1979-1981

PAST HW DRUM/DIAPHRAGM STORAGE AREA 1975-1982

PAST TREATMENT AREA OF PORELESS WATER: 1982-1991

CURRENT HW DRUM STORAGE ROOM: 19 - PRESENT

CHANGES SINCE 1988 INSPECTION - 1990

INSPECTION

NOTE: A COPY OF PROPOSED GOOD ROUTING LINE

ABANDONED THE IDEA BECAUSE IT WAS TOO COSTLY

1040 REINITS / NIGHT. BEGIN TOURING THE FACILITY THE INK MAKING ROOM IS FOULED FIRST. A TANK CONTAINING CARBON AND A FEW CONTAINERS OF PRODUCT ARE PRESENT

THE DRUM STORAGE ROOM IS THEN VIEWED THE ROOM HAS CINDER BLOCK WALLS, GEMENT FLOORS AND DOOR FLASHING / FLOOR HAS IS WOOD (2x4'S)

THE ROOM IS VENTED SEVERAL FEET OF PRODUCT ARE PRESENT

THE STAMPING / PUNCH PRESS AREA IS VIEWED NEXT. A MACHINE THE THIS PROCESS

Hummer

220720

2/24/92

Photographs

2/20/92

Stephen Meyer

Photo 1 - N - Pinn. Pinn. Storage Area
Photo 2 - NW - Pinn. Storage Area
Photo 3 - W - Pinn. Storage Area
Photo 4 - NE - Pinn. Storage Area
Photo 5 - N - Pinn. Storage Area
Photo 6 - S - Pinn. Storage Area
Photo 7 - S - Pinn. Storage Area

2/24/92 Stephen Meyer

Photos 1, 2, 6, 3 - 1045

Photo 4 - 1050

Photo 5, 6, 7 - 1100

① Stephen Meyer 2/24/92

6-11-92

1420 RETURNED TO METHOD -
(REINTS) AND PICKED UP MODIFIED

CLOSURE PLAN, MAY 1989.
FOE ASKED FOR FLOWCHART OF

WATER PROCESS TREATMENT AREA
WAS GIVEN MANUALS TO COPY

AND RETURN, WAS GIVEN

INFC FROM CONSTRUCTION

PERMITS RE. TANKS IN THE

UNIT

KUENAU SHOWED ME CANS

FOR USED RAGS (SILK SCREEN

WASH UP) BUT 1 PHOTOGRAPHED

THEM BUT FLASH DIDN'T GO OFF

BEFORE THAT, 1 RE-PHOTOGRAPHED

THE DRUM + TANK SLABS OUTSIDE

1500 LEFT THE SITE

Al Chama 9 J 6-11-92

ATTACHMENT D

ANALYTICAL RESULTS FROM INITIAL SOIL AND CONCRETE SAMPLING

Summary of Initial Soil and Concrete Sampling
Analytical Results Received on January 27, 1989

<u>Parameter</u>	<u>Sample ID</u>	<u>Concentration(ppb)</u>
Methylene Chloride	DSR	12.0
Benzene		24.0
Tetrachloroethylene		10.0
Toluene		120.0
Ethylbenzene		4.0
Total Xylenes		41.0
Acetone		2200.0
Phenanthrene		930.0
Fluoranthene		1000.0
Pyrene		560.0
Benzo(a)anthracene		310.0
Chrysene		410.0
Benzo(b)fluoranthene		310.0
Benzo(k)fluorant		210.0
Benzo(a)pyrene		200.0
Beno(g,h,i)perylene		160.0
Isophorone		3500.0
Benzidine		2100.0
Butylbenzyl phthalate		300.0
Bis(2-Ethylhexyl) phthalate		4700.0
Methylene Chloride	GSA-2	1100.0
cis-1,2-Dichloroethene		1200.0
Trichloroethylene		500.0
Benzene		4100.0
Tetrachloroethylene		61,000.0
Total Xylenes		17,000.0
Acetone		11,000.0
Phenanthrene		500.0
Fluoranthene		640.0
Pyrene		550.0
Methylene Chloride	GSA-3	740.0
cis-1,2-Dichloroethene		930.0
1,1,1-Trichloroethane		1600.0
Trichloroethylene		2200.0
Tetrachloroethylene		14,000,000.0
Chlorobenzene		830.0
Ethylbenzene		560.0
Total Xylenes		6900.0

<u>Parameter</u>	<u>Sample ID</u>	<u>Concentration(ppb)</u>
Acetone	GSA-3	5600.0
Naphthalene		1800.0
Phenanthrene		4100.0
Anthracene		440.0
Fluoranthene		2300.0
Pyrene		1000.0
Benzo(a)anthracene		570.0
Chrysene		890.0
Benzo(b)fluoranthene		640.0
Benzo(k)fluoranthene		730.0
Benzo(a)pyrene		520.0
Indeno(1,2,3-c,d)pyrene		480.0
Benzo(g,h,i)perylene		560.0
1,2,4-Trichlorobenzene		760.0
Di-N-Butyl Phthalate		870.0
Benzidine		900.0
Butylbenzyl Phthalate		1500.0
Bis(2-Ethyhexyl)phalate		720.0
Methylene Chloride	TSS	540.0
1,1,1-Trichloroethane		4300.0
Trichloroethylene		2600.0
Tetrachloroethylene		1,700,000.0
Total Xylenes		980.0
Acetone		2200.0
Naphthalene		2100.0
Acenaphthene		5400.0
Fluorene		5500.0
Phenanthrene		64,000.0
Anthracene		15,000.0
Fluoranthene		150,000.0
Pyrene		65,000.0
Benzo(a)anthracene		50,000.0
Chrysene		61,000.0
Benzo(b)fluoranthene		47,000.0
Benzo(k)fluoranthene		40,000.0
Benzo(a)pyrene		56,000.0
Indeno(1,2,3-c,d)pyrene		41,000.0
Dibenzo(a,h)anthracene		3,400.0
Benzo(g,h,i)perylene		44,000.0
2-Methylnaphthalene		580.0
1,2,4-Trichlorobenzene		1100.0
Benzidine		110,000.0
Dibenzofuran		3000.0

DSP - EAST PLANT DRUM STORAGE ROOM CONCRETE
PAVEMENT SAMPLE

GSA-213 - GRAVEL STORAGE AREA SOIL SAMPLE(S) 2 AND
3

TGS - TANK SLAB SOIL SAMPLE



217/782-6762

Refer to: 0311140002 -- Cook County
Hardwood Heights/Methode Electronics
ILD005092135
RCRA Permits

August 17, 1988

Karl E. Bremer, Chief
Technical Program Section
U.S. Environmental Protection Agency
Region V
230 South Dearborn
Chicago, Illinois 60604

Dear Mr. Bremer:

Enclosed you will find the following:

1. The Initial Screening for Environmental Significance form for the above referenced facility.
2. A copy of the Certification Regarding Potential Releases from Solid Waste Management Units for the above referenced facility.

The following form(s) were not on file at the IEPA for this facility:

3. Notification of Hazardous Waste Site (EPA Form 8900-1).
4. Preliminary Assessment (EPA Form 2070-12).

Based upon a review of the information available on the above referenced facility, the Agency has determined that this facility is not environmentally significant and that a Facility Management Plan should not be prepared. Please let us know if you do not agree with this determination.

If you have any questions regarding this initial screening, please contact
of my staff at .

Very truly yours,

Lawrence W. Eastep by cte

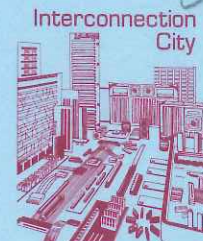
Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:EWD:jkc/2403j/17

Enclosure

cc: Division File
USEPA Region V -- Mary Murphy
FOS Northern Region

RECEIVED
AUG 22 1988
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V



7444 W. WILSON AVE. • CHICAGO, ILL. 60656

TWX 910-221-2468

TELEPHONE (312) 867-9600

January 28, 1986

RCRA Activities
Region V
P. O. Box A3587
Attention: ATKJG
Chicago, Illinois 60690

Gentlemen:

Methode Electronics, Inc. submitted a Hazardous Waste Permit Application for its facility at 7444 West Wilson Avenue, Chicago, Illinois 60656 when it operated a printed circuit operation at that site. The printed circuit operation was discontinued in July, 1981 and all wastes were removed from our site by a licensed waste removal contractor.

Current manufacturing operations use small amounts of machine oils and cleaning solvents that are recycled through the applicable vendors. Minor amounts of solvents that cannot be recycled are accumulated in a 55 gallon drum and will be removed from our site by a licensed waste removal contractor. Based upon current operations, we will not generate more than one 55 gallon drum of this waste material in an eighteen month period.

I have completed and enclosed the certification statement requested by your agency. However, I do not believe that this facility of Methode should continue to be categorized as a hazardous waste generator.

Very truly yours,

Robert J. Kuehnau
Robert J. Kuehnau
Corporate Controller

jak
enclosure

2 S 80/11/14 1 1

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN IN YOUR PART A APPLICATION

	YES	NO
Landfill		X
Surface Impoundment		X
Land Farm		X
Waste Pile		X
Incinerator		X
Storage Tank (Above Ground)		X
Storage Tank (Underground)		X
Container Storage Area		X
Injection Wells		X
Wastewater Treatment Units		X
Transfer Stations		X
Waste Recycling Operations		X
Waste Treatment, Detoxification		X
Other		

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volume of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions and location at facility. Provide a site plan if available.

N/A

NOTE: Hazardous wastes are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

3. For the units noted in Number 1 above and also those hazardous waste units in your Part A application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring.

Please provide the following information

- a. Date of release
- b. Type of waste released
- c. Quantity or volume of waste released
- d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

N/A

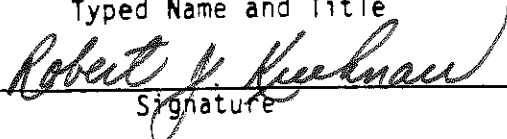
4. In regard to the prior or continuing releases described in Number 3 above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or groundwater.

N/A

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submittal is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (42 U.S.C. 6902 et seq. and 40 CFR 270.11(d))

Robert J. Kuehnau
Corporate Controller

Typed Name and Title


Signature

1/28/86

Date